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EXAMINER	
CHANKONG, DOHM	

ART UNIT	PAPER NUMBER
2152	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/971,946	AZPITARTE, JEAN-PATRICK	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 13-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 13-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/04/01.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1> Claims 1-12 were cancelled by Applicant in a preliminary amendment. Claims 13-25 are presented for examination.

Claim Objections

2> Claims 14-25 are objected to because of the following informalities: as they are dependent claims, they refer to the system previously claimed in the independent claim; therefore, they should begin with "the", not "a" when referencing "the system" according to claim 13. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3> The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4> Claims 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically claim 17 discloses "sending a fault signal when said third predetermined threshold is executed"; it is not clear what is meant to execute the threshold.

5> The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6› Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 15 discloses a means for preventing the first and second computers from sending information relating to malfunctions. The specification is silent in regards to this functionality; instead, the specification discloses preventing malfunction information from being sent to the first and second computers, not vice versa [see page 2, lines 28-32 | page 10, lines 19-24].

Claim Rejections - 35 USC § 103

7› The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8› Claims 13-16 and 23-25 are rejected under 35 U.S.C § 103(a) as being unpatentable over Reid et al, U.S Patent No. 6.298.308 ["Reid"], in view of Whynacht, U.S Patent No. 4.568.909.

9› As to claim 13, Reid discloses a system for remotely managing the maintenance of a set of facilities by a maintenance company and a facility management company, which system comprises:

local monitoring units installed in close proximity to the facilities and each said local monitoring unit comprising means for carrying out measurements on the operation of the facilities for detecting malfunctions [Figure 2 «items 16» | column 5 «lines 12-21»];

a first computer, said first computer being connected to the local monitoring units through a transmission network and receiving and processing information relating to the malfunctions detected by the local monitoring units [Figure 2 «item 34» | column 6 «lines 6-14»];

a second computer, said second computer receiving from the local monitoring units the same information as the first computer [Figure 2 «item 22» | column 6 «lines 6-14» | column 6 «lines 41-67» | column 13 «lines 42-54»].

Reid does disclose said first and second computers comprising means for storing all information transmitted by the local monitoring units and said local monitoring units being associated with at least one of said facilities [Figure 2 «items 14, 16» | column 6 «lines 6-14» | column 13 «lines 42-54» where: the email clients all receive and store the email containing the diagnostic data. Storing of emails is well known and expected in the art] but does not explicitly disclose said local monitoring units further comprising control means for allowing a maintenance engineer to notify a start and an end of an inspection of the associated facility, said start and said end being transmitted to the first and second computers.

10› Whynacht discloses a local monitoring unit further comprising control means for allowing a maintenance engineer to notify a start and an end of an inspection of the associated facility, said start and said end being transmitted to the first and second computers [column 19 «lines 13-32»]. It would have been obvious to incorporate Whynacht's inspection notification means into Reid's remote monitoring system to allow servicemen to alert the maintenance company that an inspection has started and ended. One would have been motivated to perform such an implementation as Reid suggests such a control means in the local monitoring units [column 8 «lines 41-46»].

11› As to claim 14, Reid discloses the system according to claim 13, wherein said first computer is available to the maintenance company and the second computer is available to the facility management company [column 6 «lines 6-14 and 58-67» where: the maintenance personnel is analogous to the maintenance company and operations personnel are analogous to facility management company].

12› As to claim 15, Reid does not explicitly disclose the system wherein each said local monitoring unit for preventing the first and second computers from sending information relating to malfunctions and failures detected between the start and the end of said inspection and signaled using said control means.

13› However, the functionality to prevent transmissions of malfunctions during the inspection is well known in the art for providing the benefit of preventing sending redundant or false alarms on failures which the technician is there to repair. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the transmission prevention functionality into Reid's maintenance system to allow technicians to prevent redundant transmissions or even power down network connections so he can properly work and fix the faults.

14› As to claim 16, Reid discloses the system according to claim 13, wherein each of said computers is connected to a database collecting all information relating to the facilities and the maintenance thereof, and the information transmitted by said local monitoring units [column 6 «lines 6-14» | column 10 «lines 11-54» where: all computers in the network are connected to the database stored in the local monitoring unit].

15› As to claim 23, Reid discloses the system according to claim 13, wherein each of said local monitoring units comprises means for detecting faults pertaining to operation of said local monitoring unit and for sending malfunction information if such faults are detected to said first computer when said first computer is made available to a maintenance operator [Figure 2 | column 6 «lines 41-67»].

16› As to claim 24, Reid does not disclose the system wherein each of said local monitoring units comprises:

means for starting a first timer after a malfunction has been detected on the associated facility;

means for starting a second timer if the first timer has timed out without the corresponding fault having disappeared;

means for sending a malfunction message to the first and second computers if the second timer has timed out without the corresponding fault having disappeared;

means for starting a third timer after a fault has disappeared; and

means for transmitting a fault disappearance message if the third timer has timed out without the corresponding fault reoccurring.

17› Whynacht discloses a system wherein each of said local monitoring units comprises:

means for starting a first timer after a malfunction has been detected on the associated facility [column 21 «line 56» to column 22 «line 6»];

means for starting a second timer if the first timer has timed out without the corresponding fault having disappeared [column 22 «lines 46-55»];

means for sending a malfunction message to the first and second computers if the second timer has timed out without the corresponding fault having disappeared [column 22 «lines 10-15»];

means for starting a third timer after a fault has disappeared [column 24 «lines 55-66»]; and

means for transmitting a fault disappearance message if the third timer has timed out without the corresponding fault reoccurring [Figures 14, 15 | column 25 «lines 1-24» where: Whynacht's "Return to Normal" message is analogous to a fault disappearance message].

It would have been obvious to one of ordinary skill in the art to incorporate Whynacht's timers into Reid to increase the functionality of Reid's remote monitoring system. One would have been motivated to perform such an implementation to insure that the alarm conditions in the system are proper alarm conditions and not false alarms, thereby minimizing costs of sending out maintenance engineers to the facilities [column 22 «lines 46-55» | column 23 «lines 4-6»].

18› As to claim 25, Reid does not disclose the system wherein a respective duration for each of the first, second and third timers is determined independently from each other as a function of each malfunction type.

19› Whynacht discloses a system wherein a respective duration for each of the first, second and third timers is determined independently from each other as a function of each malfunction type [column 21 «line 56» to column 23 «line 27» | column 24 «lines 55-67»]. It would have been obvious to one of ordinary skill in the art to incorporate Whynacht's varying timers into Reid to take into account the various malfunctions that may occur in the monitored devices.

20> Claims 17 and 18 are rejected under 35 U.S.C § 103(a) as being unpatentable over Reid and Whynacht, in further view of Beamon, U.S Patent No. 6.845.148.

21> Reid does not explicitly disclose the system according to claim 13, wherein the first and second computers comprise:

means for counting a number of maintenance inspections carried out for each monitored facility during a predetermined period of time, for comparing said number to a first determined threshold, and for transmitting a first maintenance fault signal if the number of inspections does not reach said first predetermined threshold at the end of said predetermined period of time;

means for computing a total duration of the maintenance operations performed on each monitored facility during said predetermined period of time, for comparing said total duration to a second predetermined threshold, and for sending a second maintenance fault signal if said total duration is not at least equal to said second predetermined threshold at the end of said predetermined period of time;

means for comparing a response time of a maintenance engineer for a facility detected as malfunctioning with a third predetermined threshold, and for sending a third maintenance fault signal when said third predetermined threshold is executed; and

means for comparing a time to restart a facility after a facility malfunction or repair operation with a fourth predetermined threshold, and for sending a fourth maintenance fault signal when said forth predetermined threshold is exceeded.

22› Beamon discloses computers comprising:

means for counting a number of maintenance inspections carried out for each monitored facility during a predetermined period of time, for comparing said number to a first determined threshold, and for transmitting a first maintenance fault signal if the number of inspections does not reach said first predetermined threshold at the end of said predetermined period of time [column 11 «lines 16-30» | column 12 «lines 25-54»];

means for computing a total duration of the maintenance operations performed on each monitored facility during said predetermined period of time, for comparing said total duration to a second predetermined threshold, and for sending a second maintenance fault signal if said total duration is not at least equal to said second predetermined threshold at the end of said predetermined period of time [column 12 «lines 26-54» | column 19 «lines 43-46»];

means for comparing a response time of a maintenance engineer for a facility detected as malfunctioning with a third predetermined threshold, and for sending a third maintenance fault signal when said third predetermined threshold is executed [Figure 15 | Figure 16 (work by date, dispatch date) | Figure 17 | column 8 «lines 50-59» | column 21 «lines 37-59»]; and

means for comparing a time to restart a facility after a facility malfunction or repair operation with a fourth predetermined threshold, and for sending a fourth maintenance fault signal when said forth predetermined threshold is exceeded [column 12 «lines 26-54»].

It would have been obvious to one of ordinary skill in the art to incorporate Beamon's maintenance monitoring functionality into Reid to further enhance Reid's predictive maintenance capabilities. One would have been motivated to perform such an

implementation to increase the accuracy of the maintenance predictions by allowing dedicated groups to monitor the maintenance activities [column 20 «lines 14-16»].

23› As to claim 18, Reid does not explicitly disclose the system wherein the second computer comprises means for computing penalties to be applied to the maintenance company after sending a maintenance fault signal as a function of the applied penalties. However, the concept of enforcing a contract and issuing reprimands based on the limitations of the contract are well known in the art; since the claim is merely an automation of this process, it would have been obvious to one of ordinary skill in the art to incorporate automated penalty system into Reid's predictive maintenance system to insure that the maintenance is carried out correctly.

24› Claim 19 is rejected under 35 U.S.C § 103(a) as being unpatentable over Reid, Whynacht and Beamon, in further view of Applicant's disclosure.

25› Reid does not explicitly disclose the system wherein the first and second predetermined thresholds are set as a function of the monitored facilities, and wherein the third and fourth predetermined thresholds are defined as a function of the detected malfunction or the type of repair, said thresholds being as defined by a maintenance contract binding the maintenance company to the managing company.

26› Reid and Beamon do not disclose a maintenance contract. But as disclosed by Applicant in the disclosure [page 1, lines 15-17] and in the claim language, the thresholds are necessarily defined by a contract established between the maintenance and management company; this functionality is not novel as maintenance contracts are well known in the art. Since thresholds are terms specified in the maintainance contract, monitoring for those thresholds (or any other performance parameters specified in the contract) would have been obvious to incorporate the contracts and the defined thresholds into Reid so as to enabled the system to determine if/when any term of the contract is violated. Reid further suggests the functionality of thresholds to determine the level of response towards a problem [column 3 «lines 6-12»].

27› Claims 20 and 21 are rejected under 35 U.S.C § 103(a) as being unpatentable over Reid and Whynacht, in further view of Petite et al, U.S Patent No. 6.437.692 ["Petite"].

28› As to claim 20, Reid discloses the system according to claim 13, wherein transmissions between the local monitoring units and the first and second computers are carried out through a basic wire or radio telephone network [column 5 «lines 42-49» | column 6 «lines 31-40» | column 7 «lines 24-39»] but does not disclose wherein the local monitoring units further comprises for setting-up a link between the local monitoring units and the first and second computers through a ratio telephone network , when the local monitoring units cannot access a basic telephone network.

29› Petite discloses the local monitoring units further comprises for setting-up a link between the local monitoring units and the first and second computers through a ratio telephone network , when the local monitoring units cannot access a basic telephone network [column 11 «line 58» to column 12 «line 3» | claim 11]. It would have been obvious to one of ordinary skill in the art to have incorporated Petite's backup links into Reid. One would have been motivated to perform such an implementation as backup network connections provide backup when primary means of connection fails. Such an method is well known and expected in the art.

30› As to claim 21, Reid discloses the system according to claim 20, wherein at least one local monitoring unit on each site comprises a data transmission unit, wherein said data transmission unit comprises means for transmission over the basic telephone network and means for transmission over the radio telephone network, and wherein other local monitoring unites of the site comprising means for connection to said data transmission unit [Figure 2 «items 16 and 30» | column 6 «lines 31-40» | column 8 «lines 11-17»].

31› Claim 22 is rejected under 35 U.S.C § 103(a) as being unpatentable over Reid, Whynacht and Petite, in further view of Johnson et al, U.S Patent No. 6.553.336 ["Johnson"].

32› Reid discloses the system according to claim 21, wherein the local monitoring unit discloses sending fault messages when detecting a problem with the monitoring unit [column 12 «lines 49-62»] but does not specifically disclose the radio telephone network transmission

means in the data transmission unit are provided with a backed-up power supply for sending a power supply fault message when the local monitoring unit is no longer powered.

33› Johnson discloses a radio telephone network transmission means in the data transmission unit are provided with a backed-up power supply for sending a power supply fault message when the local monitoring unit is no longer powered [column 15 «lines 47-53»]. It would have been obvious to one of ordinary skill in the art to incorporate Johnson's power supply monitoring functionality into Reid's remote monitoring system to allow the monitoring unit to keep running if the primary power supply fails. One would have been motivated to perform the implementation as Reid suggests keeping track of the status of the local monitoring unit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dung C. Dinh
Primary Examiner

DC